



US006280327B1

(12) **United States Patent**
Leifer et al.

(10) **Patent No.:** **US 6,280,327 B1**
 (45) **Date of Patent:** ***Aug. 28, 2001**

(54) **WIRELESS GAME CONTROL UNITS**

(75) **Inventors:** **Alan E. Leifer, Dix Hills, NY (US);**
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(73) **Assignee:** **Arista Interactive LLC, Hauppauge,**
NY (US)

(*) **Notice:** This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/092,489**

(22) **Filed:** **Jun. 5, 1998**

(51) **Int. Cl.⁷** **A63F 13/06**

(52) **U.S. Cl.** **463/39; 463/36; 345/156**

(58) **Field of Search** **463/36, 37, 38,**
463/39; 345/156, 161

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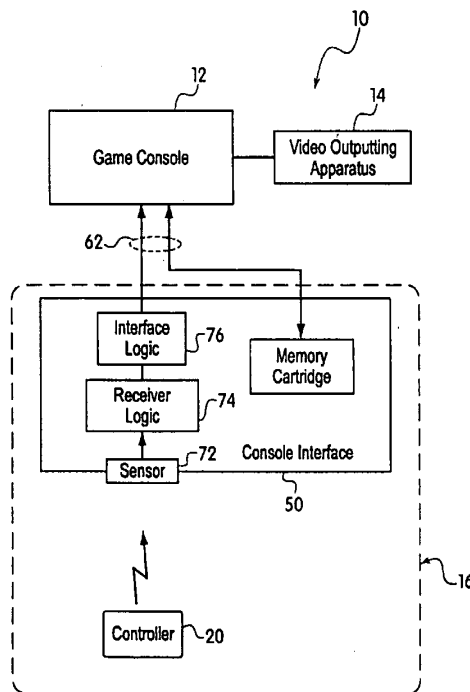
Primary Examiner—J. Harrison

(74) **Attorney, Agent, or Firm—Keusey & Tutunjian, P. C.**

(57) **ABSTRACT**

A wireless control unit includes a controller having at least one user operable switch and wireless transmitter circuitry for transmitting game information, including a auto activate start information, and a console interface having wireless receiver circuitry for receiving the game information, including the auto activate start information, form the controller and for modifying the game information so that an activate signal is continuously sent from the console interface to the console and at least one object in a game being played with the video game system is continuously activated.

18 Claims, 8 Drawing Sheets





US006238289B1

(12) **United States Patent**
Sobota et al.

(10) **Patent No.:** **US 6,238,289 B1**
(45) **Date of Patent:** **May 29, 2001**

(54) **RADIO FREQUENCY GAME CONTROLLER**

(75) **Inventors:** John Sobota; Louis Garner; Jason Gostor, all of Edmonton (CA)

(73) **Assignee:** Eleven Engineering Inc., Edmonton (CA)

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** 09/480,035

(22) **Filed:** Jan. 10, 2000

(51) **Int. Cl.⁷** A63F 9/24

(52) **U.S. Cl.** 463/39; 463/36; 273/148 B

(58) **Field of Search** 463/39, 38, 37,
463/36; 273/148 B; 455/464, 463, 573,
67.4, 411

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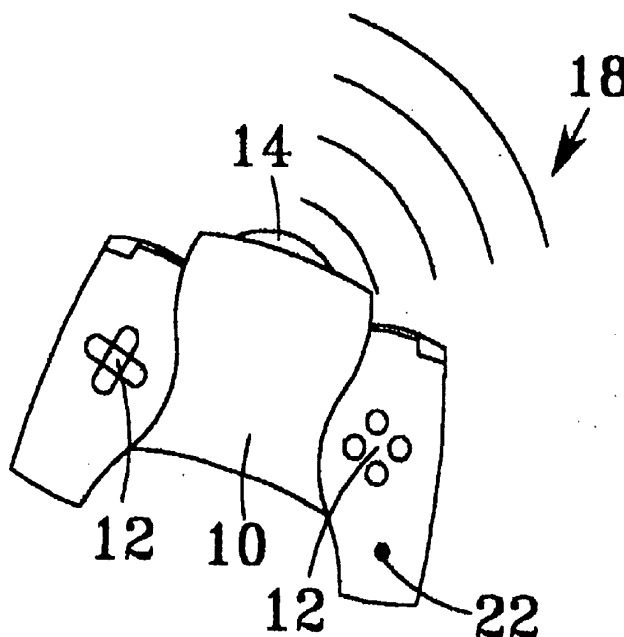
Primary Examiner—Michael O'Neill

(74) *Attorney, Agent, or Firm*—Alan J. Atkinson

(57) **ABSTRACT**

A game controller for communication between a user and an electronic game device transmitting signals to a receiver. The game controller identifies weakness in signal strength or operation and permits adjustment to a more effective operating frequency. The game controller comprises a portable housing, game controller keys attached to the housing for permitting the user to generate signals, a radio frequency sender engaged with the game controller keys for transmitting the signals to the receiver; and a controller attached to sender for determining a selected parameter regarding the signals and for communicating the parameter to the user. The radio frequency sender is capable of transmitting signals over multiple frequencies and preferable operates with the Remote Band frequency range. At least one of the keys can be operable by the user to change the signal frequency or the controller can automatically change the signal frequency to a more effective frequency. The controller can be capable of identifying parameters regarding the signal such as the signal strength and is capable of polling information over one or more discrete time periods. Information regarding the signal can be communicated with a display such as a light.

20 Claims, 1 Drawing Sheet





US006213880B1

(12) **United States Patent**
Sim

(10) Patent No.: **US 6,213,880 B1**
(45) Date of Patent: **Apr. 10, 2001**

(54) **GAME PAD APPARATUS AND METHOD
FOR NAVIGATION ON A DIGITAL VIDEO
DISK (DVD) SYSTEM**

(75) Inventor: **Wong Hoo Sim, Singapore (SG)**

(73) Assignee: **Creative Technology, Ltd. (SG)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/151,503**

(22) Filed: **Sep. 11, 1998**

Related U.S. Application Data

(60) Provisional application No. 60/065,550, filed on Nov. 14, 1997.

(51) Int. Cl.⁷ **A63F 13/02**

(52) U.S. Cl. **463/37; 463/36**

(58) Field of Search **463/37, 38, 36;
273/148 B; 341/20, 22, 176; 369/24, 27;
345/156, 168**

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Primary Examiner—Valencia Martin-Wallace

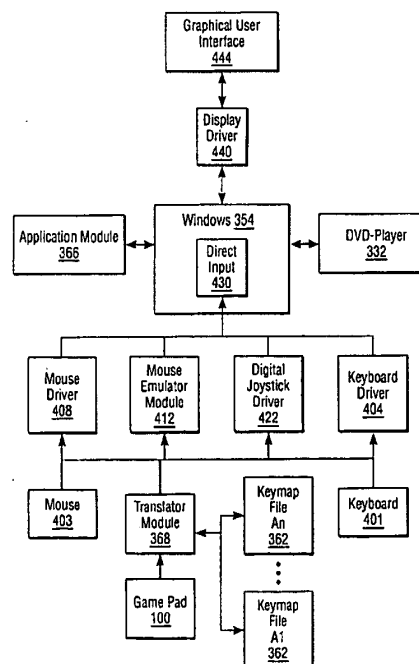
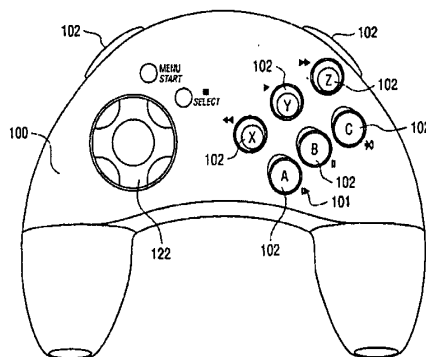
Assistant Examiner—Julie Kasick

(74) *Attorney, Agent, or Firm*—Fenwick & West LLP

(57) **ABSTRACT**

The game pad 100 of the present invention allows a user 340 to control games requiring a keyboard 401 or a joystick, applications requiring a mouse input, and DVD-players 332. The game pad 100 provides complete application-specific programmability by the use of a translator module 368 and keymap files 362. A user 340 can customize the game pad 100 to generate the commands used by an application 366 by defining a keymap file 362 for the application 366. Then, the activation of a game or application 366 is detected, and the corresponding keymap file 362 is loaded into memory, thus allowing the game pad 100 to seamlessly control the application using the user-defined commands. Multiple key-strokes or commands may be assigned to each button 110, and multiple keymap files 362 may be created for each application 366. DVD navigation capability is fully integrated with game pad 100, including printing navigation icons on the game pad 100 and providing both keyboard and mouse mapping for the game pad 100 to allow complete DVD-player 332 control.

16 Claims, 13 Drawing Sheets





US006008735A

United States Patent [19][11] **Patent Number:** **6,008,735****Chiloyan et al.**[45] **Date of Patent:** ***Dec. 28, 1999**

- [54] **METHOD AND SYSTEM FOR PROGRAMMING A REMOTE CONTROL UNIT**
- [75] **Inventors:** John H. Chiloyan, Redmond; Edwin W. Thorne, III, Seattle, both of Wash.

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U.S. Patent application Ser. No. 08/394,659 entitled "System and Method for Remotely Managing Memory In A Portable Information Device From An External Computer," inventors Vinay Deo and Neil S. Fishman, filed Feb. 2, 1995.

U.S. Patent application Ser. No. 08/428,917 entitled "System and Method for Remotely Programming A Portable Information Device Using Optical Serial Data Transmission From A Frame-Scanning Graphics Display Device," inventors Victor Schiff, Neil S. Fishman, and Philip Brzezinski, filed Apr. 25, 1995.

Primary Examiner—Michael Horabik

Assistant Examiner—William H. Wilson, Jr.

Attorney, Agent, or Firm—Jones & Askew, LLP

- [73] **Assignee:** Microsoft Corporation, Redmond, Wash.
- [*] **Notice:** This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] **Appl. No.:** 08/794,687

[22] **Filed:** Feb. 3, 1997

[51] **Int. Cl.⁶** G05B 19/04

[52] **U.S. Cl.** 340/825.22; 455/151.4; 455/352; 340/825.72; 341/176; 359/146; 359/148

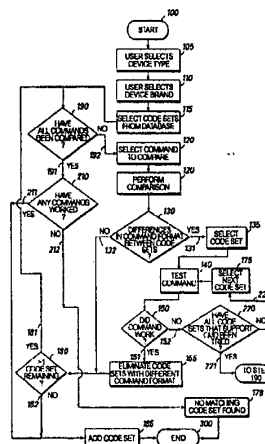
[58] **Field of Search** 455/4.1, 151.4, 455/151.2, 352, 151.1; 340/825.69, 825.72, 825.71, 825.57, 825.63, 825.62, 825.22; 341/176, 22; 359/142, 145, 146, 148, 147; 348/734; 360/69; 1/1

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[57] ABSTRACT

A method and system for programming a remote control unit to control the operation of a controllable device. A group of code sets associated with a particular type and brand of controllable device are selected from a database of code sets stored in the memory of the remote control unit. The commands of each code set in the group of code sets are compared to identify similarities and dissimilarities between command formats within each respective code set. The user tests a command and provides feedback to the remote control unit regarding the results of such testing. When the testing of a command is successful, the remote control unit eliminates code sets containing a command format that is dissimilar to the format of the command that was successfully tested. By eliminating code sets from the group of code sets and testing other commands, the remote control unit eliminates all but one code set. The one remaining code set is identified as the best code set and is added to the remote control unit to allow the remote control unit to transmit signals to control operation of the controllable device.

26 Claims, 7 Drawing Sheets



US005629868A

United States Patent [19]

Tessier et al.

[11] Patent Number: **5,629,868**[45] Date of Patent: **May 13, 1997**[54] **METHOD OF PROGRAMMING LOCAL CONTROL**[75] Inventors: **Alain Tessier, Piedmont; Alain Cartier, Pierrefonds; Michel Beaudry, Geneviève Ayotte, both of Montreal, all of Canada**[73] Assignee: **Le Groupe Vidéotron Ltée, Montreal, Canada**[21] Appl. No.: **193,413**[22] Filed: **Feb. 7, 1994**[51] Int. Cl.⁶ **G08B 1/08**[52] U.S. Cl. **364/514 R; 348/164**[58] Field of Search **348/764, 164; 380/10; 359/142, 145, 146, 172, 181; 340/825.72, 825.82, 825.83; 364/514 R**[56] **References Cited****U.S. PATENT DOCUMENTS**

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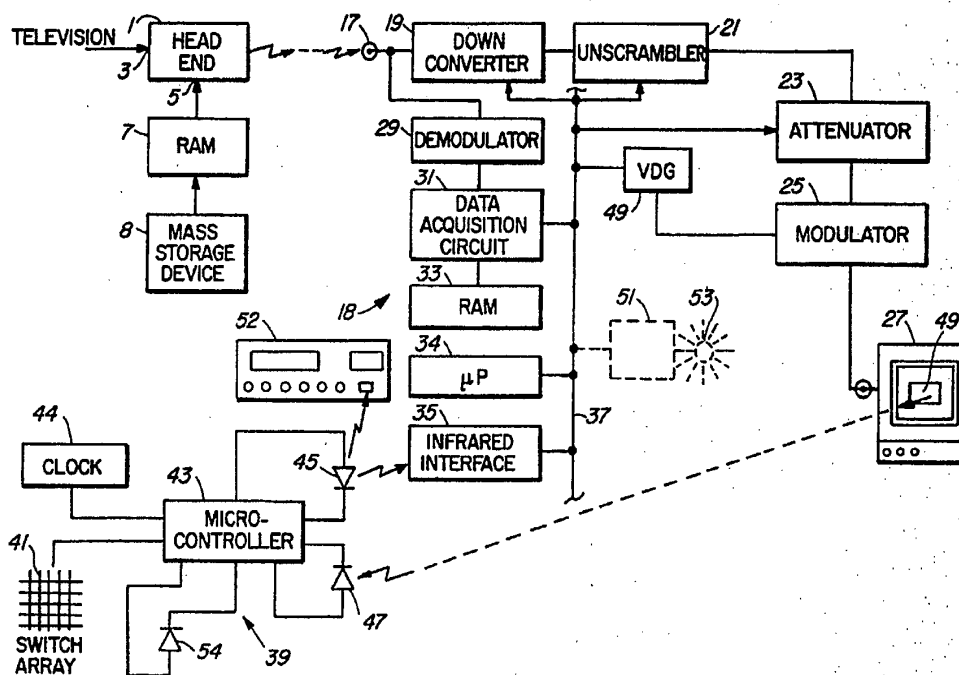
5,410,326 4/1995 Goldstein 348/734

Primary Examiner—Emanuel T. Voeltz*Assistant Examiner*—Thomas Peeso*Attorney, Agent, or Firm*—Pascal & Associates

[57]

ABSTRACT

This invention relates to programming a remote control comprised of storing in a memory, data for control of a population of appliances, the data being sufficient to allow a remote control to remotely control functions of any of the population of appliances; selecting which appliances are to be controlled by the remote control; transmitting to the remote control data for control of the selected appliances; storing the transmitted data in the remote control; whereby the remote control is programmed to control the selected appliances.

28 Claims, 2 Drawing Sheets



US005806849A

United States Patent [19][11] **Patent Number:** 5,806,849**Rutkowski**[45] **Date of Patent:** Sep. 15, 1998[54] **ELECTRONIC GAME SYSTEM WITH WIRELESS CONTROLLER**[75] **Inventor:** Ricky Allen Rutkowski, Sunnyvale, Calif.[73] **Assignee:** Electronic Arts, Inc., San Mateo, Calif.[21] **Appl. No.:** 194,935[22] **Filed:** Feb. 11, 1994[51] **Int. Cl.⁶** G11B 31/00[52] **U.S. Cl.** 273/438; 273/434; 273/148 B; 345/158; 345/169[58] **Field of Search** 273/148 B, 434, 273/438, 85 G, 437, DIG. 28; 345/158, 169; 434/350, 351[56] **References Cited****U.S. PATENT DOCUMENTS**

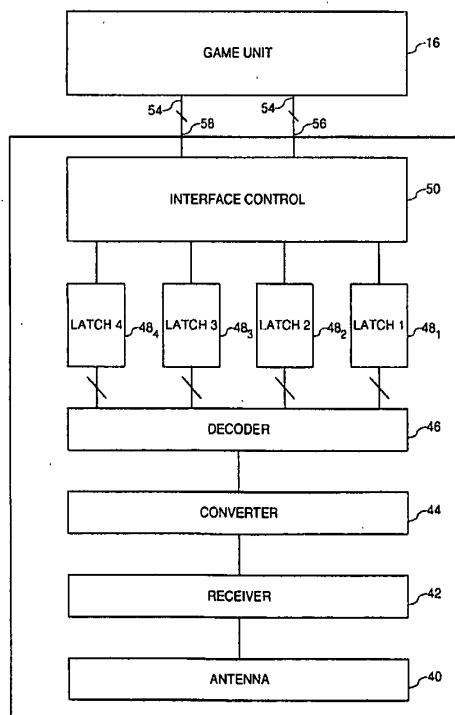
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Primary Examiner—Vincent Millin*Assistant Examiner*—Kerry Owens*Attorney, Agent, or Firm*—Phong K. Truong; Charles E. Gotlieb[57] **ABSTRACT**

An electronic game system includes a game console, which accepts a game cartridge and runs the games stored therein, and a wireless controller for controlling actions in the game. The wireless controller includes a radio frequency transmitter for sending control signals to the console, and the console includes a receiver for receiving the control signals from the controller. Because the controller uses radio frequency signals instead of infrared signals to send information to the console, the controller may be operated at a large distance from the console. Thus, the game system of the invention may be used in long range applications wherein the console and the controller need to be separated by a relatively large distance.

14 Claims, 4 Drawing Sheets



US005605505A

United States Patent [19]

Han

[11] **Patent Number:** 5,605,505[45] **Date of Patent:** Feb. 25, 1997

[54] **TWO-PLAYER GAME PLAYING APPARATUS
USING WIRELESS REMOTE
CONTROLLERS**

4,531,740 7/1985 Green et al. 463/39 X
4,924,216 5/1990 Leung 463/39 X
5,364,108 11/1994 Esnouf 463/39 X

[75] **Inventor:** Jang W. Han, Kyungki-do, Rep. of
Korea

Primary Examiner—William H. Grieb
Attorney, Agent, or Firm—Finnegan, Henderson, Farabow,
Garrett & Dunner, L.L.P.

[73] **Assignee:** LG Electronics Co., Ltd., Seoul, Rep.
of Korea

[57] **ABSTRACT**

A two-player game playing apparatus using wireless remote controllers includes a first remote controller, a second remote controller, a first remote control signal receiver for receiving a game key signal transmitted from the first remote controller, a second remote control signal receiver for receiving the game key signal transmitted from the second remote controller, a decoder, a game pack, a game processor, and a video outputting apparatus, thereby allowing two players to enjoy a game with wireless remote controllers. Further, a microcomputer is employed only in one of the two remote controllers, thereby reducing the production cost and simplifying the configuration.

[21] **Appl. No.:** 393,771

[22] **Filed:** Feb. 24, 1995

[30] **Foreign Application Priority Data**

Feb. 25, 1994 [KR] Rep. of Korea 1994-3478

[51] **Int. Cl.⁶** A63F 9/22

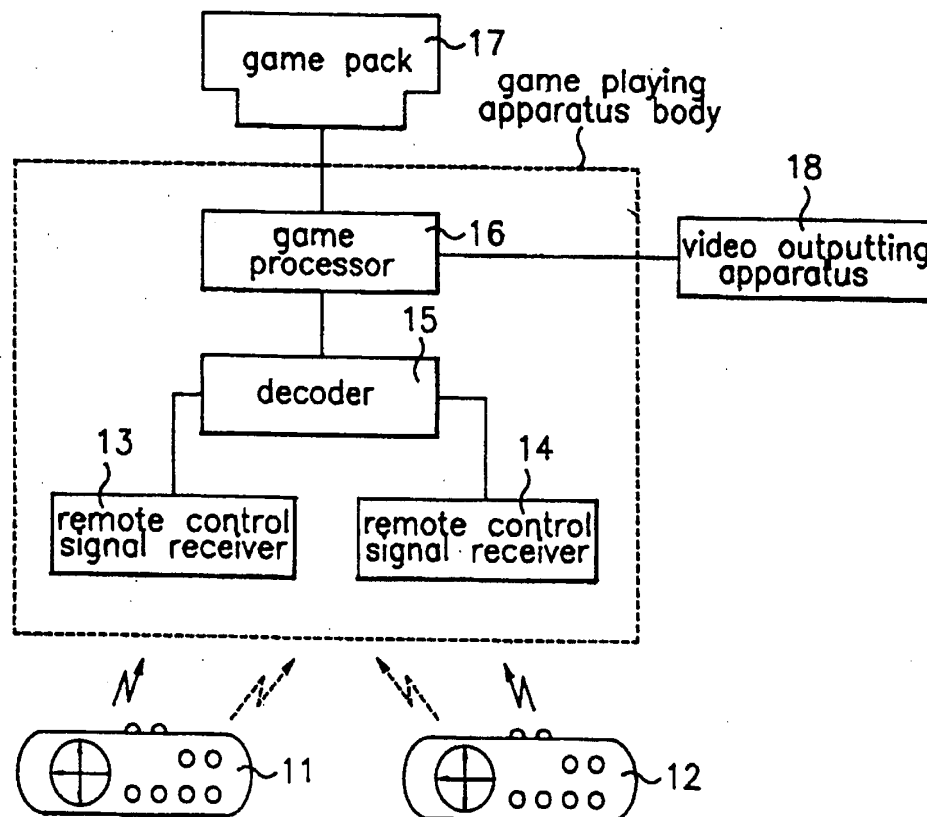
[52] **U.S. Cl.** 463/39

[58] **Field of Search** 463/39

[56] **References Cited****U.S. PATENT DOCUMENTS**

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13 Claims, 8 Drawing Sheets





US005429363A

United States Patent [19]**Hayashi**[11] **Patent Number:** **5,429,363**[45] **Date of Patent:** **Jul. 4, 1995**[54] **RADIO TRANSMISSION SYSTEM FOR TV GAME MACHINE**[75] **Inventor:** Yoshikazu Hayashi, Inuyama, Japan[73] **Assignee:** Makoto Yokota, Japan; a part interest[21] **Appl. No.:** 86,663[22] **Filed:** Jul. 2, 1993[30] **Foreign Application Priority Data**

Jul. 6, 1992 [JP] Japan 4-178575

[51] **Int. Cl.⁶** A63F 9/24[52] **U.S. Cl.** 273/148 B; 273/434[58] **Field of Search** 273/85 G, 148 B, 433, 273/434, 435, 436, 437, 438, 439, DIG. 28[56] **References Cited****U.S. PATENT DOCUMENTS**

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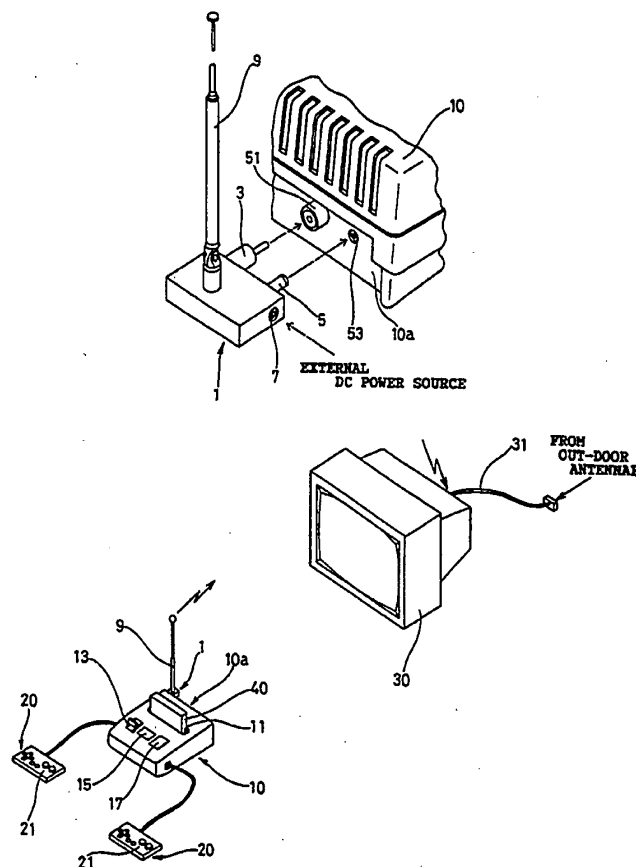
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Primary Examiner—Jessica J. Harrison*Attorney, Agent, or Firm*—Davis, Bujold & Streck[57] **ABSTRACT**

A radio transmission apparatus for TV game machine, a radio transmission adaptor connectable to a main body of existing TV game machine, and a TV game cassette provided with a radio transmitting antennae are disclosed as radio transmission system for TV game machine. According to the radio transmission system, radio frequency output signals representing game data contained in TV game cassette is amplified and transmitted by radio to feeder or indoor antennae connected to TV set having no special receiving portion to receive the transmitted game data, thereby attaining wireless transmission of game data.

6 Claims, 7 Drawing Sheets



US005410326A

United States Patent [19]

Goldstein

[11] Patent Number: 5,410,326

[45] Date of Patent: Apr. 25, 1995

[54] PROGRAMMABLE REMOTE CONTROL
DEVICE FOR INTERACTING WITH A
PLURALITY OF REMOTELY CONTROLLED
DEVICES[76] Inventor: Steven W. Goldstein, 8901 Burdette
Rd., Bethesda, Md. 20817

[21] Appl. No.: 984,120

[22] Filed: Dec. 4, 1992

[51] Int. Cl.⁶ H04N 5/44[52] U.S. Cl. 348/134; 359/196;
340/825.72; 455/151.2; 455/4.1; 348/7[58] Field of Search 340/825.69, 825.71,
340/825.72; 359/142, 145, 146, 148; H04N
5/44; 455/4.1, 151.4, 151.2, 352; 348/734, 7, 10

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Primary Examiner—James J. Groody

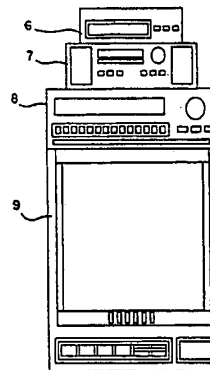
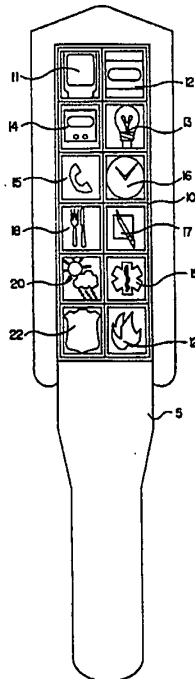
Assistant Examiner—Jeffrey S. Murrell

Attorney, Agent, or Firm—Pollock, Vande Sande &
Priddy

[57] ABSTRACT

A universal remote control device which is programmed to operate a variety of consumer products is disclosed. The device is connected over a bidirectional link to either a cable converter or a telephone interface for receiving programming information. A touch screen display is employed on the programmable remote control device for displaying icons of functions to be selected. By selecting a particular displayed icon, a command can be decoded and sent via an infrared link to one or more appliances. Infrared codes for operating a virtually unlimited number of devices can be supplied to the device over the bidirectional communications link. Further, a provision is provided to permit a telephone connection to be set up between the user's home and a facility advertising products or services over a cable television broadcast. The touch screen display will permit the actual display of these advertisements as messages received from the cable head end system. Orders may be placed from the universal remote control device based on these displayed advertisements.

21 Claims, 25 Drawing Sheets



United States Patent [19]

Green et al.

[11] Patent Number: 4,531,740

[45] Date of Patent: Jul. 30, 1985

[54] REMOTE CONTROL SYSTEM FOR A VIDEO COMPUTER GAME

[75] Inventors: Dan Green, Cranford, N.J.; Sandor Goldner, Brooklyn, N.Y.

[73] Assignee: Cynex Manufacturing Corporation, Hillside, N.J.

[21] Appl. No.: 506,652

[22] Filed: Jun. 22, 1983

[51] Int. Cl.³ A63F 9/22

[52] U.S. Cl. 273/148 B; 273/DIG. 28

[58] Field of Search 273/1 E, 85 G, DIG. 28, 273/237; 434/323, 307, 350, 351, 876; 343/876; 358/49

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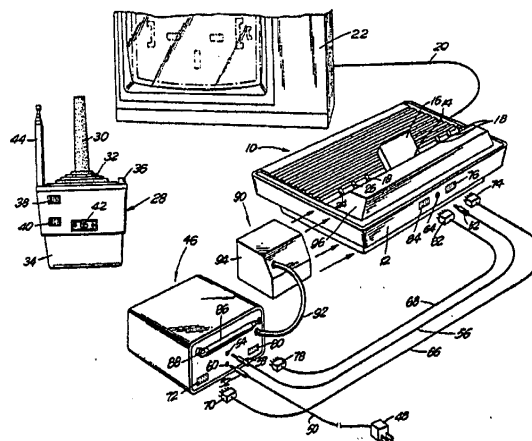
Primary Examiner—Richard C. Pinkham

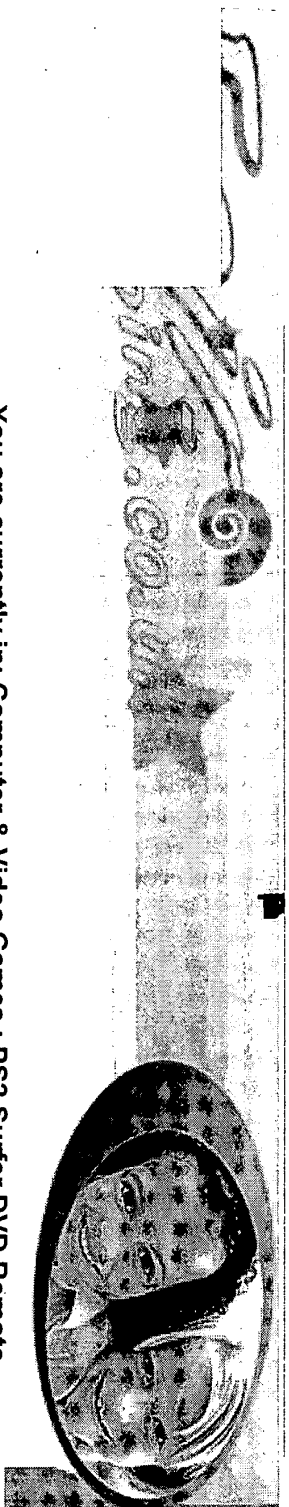
Assistant Examiner—MaryAnn Stoll Lastova
Attorney, Agent, or Firm—Goodman & Teitelbaum

[57] ABSTRACT

A remote control system for a video computer game having a portable controller unit with transmitter circuits responsive to manipulation of a joy stick for generating RF signals indicative of such manipulations. A reset switch and a game select switch is also provided for generating signals which are also sent as RF signals. A central receiver receives the RF signals from the portable controller unit and converts the manipulation signals into signals applicable to control the video game. The reset signal and the game select signal are sent to an actuator unit which is physically mounted onto the master control center and includes mechanical actuator mechanisms to mechanically engage the reset and game selector buttons on the master control center. The central receiver also includes detection elements to prevent random signals from disturbing the game during such time periods when it is not receiving signals from the transmitter controllers.

9 Claims, 9 Drawing Figures





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PS2 Surfer DVD Remote Control

from: Datel Direct Ltd



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Release Date: 23 February, 2001

Media: Video Game
Platform: PlayStation2

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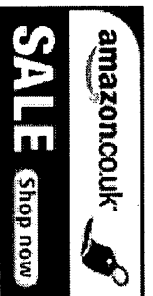
Customer Reviews

Average Rating: ★★★★★

Rating: ★★★★★ - remote controll

This is a big remote for the dvd player i brought this one after losing joytects tiny remote down the sofa ,will i lose this one. No port for controller but the remote works from most directions and if you pulg it into port 2 it runs the dvds still.This device will not control games via anologe only digital

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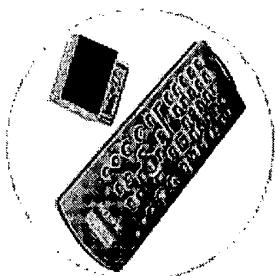
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1/21/04



DVD Remote Control (for PlayStation®2) with IR Receiver Unit

System: PlayStation 2

Model Number: SCPH-10171

Manufacturer: SCEI

Description: Play your favorite movies without any wires or other hassles! Modeled to match the sleek design of the PlayStation 2 computer entertainment system, the DVD Remote has all the features of a standard controller plus enhanced DVD capabilities. The DVD Remote Control package includes (1) DVD Remote Control (SCPH-10150), (1) IR Receiver Unit (SCPH-10160), (1) DVD Player disc (1) Instruction Manual, and (2) Size AAA Batteries.

Discover even more DVD features with an updated version of the PlayStation 2 DVD driver for use with the DVD Remote Control--Slow Motion, Chapter Program, A=B Repeat, Shuffle, Repeat, and Three-Speed Scan are all accessible at the push of a button, as are all of the basic PlayStation 2 DVD functions such as Audio Track selection, Subtitle display, and Multi-Angle options.

A Memory Card (8MB) (for PlayStation 2) (sold separately) is required to use the DVD remote control with console model numbers SCPH-30001 and SCPH-35001GT.



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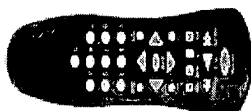
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Offered by: GameStop.com (Seller Profile)

15 used & new from \$19.30

Platform: Xbox

Features:

- Enables DVD movie playback functionality on the Xbox
- Includes remote control
- Infrared receiver plugs into Xbox controller port
- Makes your Xbox a complete entertainment system
- Required for DVD functionality on the Xbox

Amazon.com Sales Rank: 767
Shipping: GameStop.com's shipping rates and policies

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Date first available at Amazon: December 9, 2003

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Editorial Reviews

Amazon.com Review

Got an Xbox? Do you enjoy watching DVDs? Then you need one of these. This DVD playback kit unlocks the DVD functionality of Microsoft's powerful Xbox and helps make the console an even more important addition to your home entertainment deck.

Feeling rather light in hand, this remote features large keys that feel rubbery yet firm. The kit sports some of the basic functions you'd expect from a common controller, including chapter skip, play, pause, and number buttons. There's also handy 32x fast-forward and reverse controls.

Pressing the display button calls up a friendly onscreen menu that allows access to more features, including up to 10x magnification, A-B playback loop (for cueing and viewing favorite scenes repeatedly), and subtitle and audio options. It's worth noting that many lower-cost DVD remotes have access to such features through the press of a button. The fact that this one *requires* you to use a menu to access such common commands may rankle DVD aficionados, as the menu is a bit slower than using buttons. Still, the menu is quite intuitive and couldn't be much easier to use.

For the remote to work, you'll need to plug the included infrared receiver into an open controller port on the Xbox. Most gamers will never need to unplug the receiver again, as you can plug it into the rarely used fourth port. Interestingly, the receiver works best when the remote is operated almost directly in front of it, and can be a little

finicky when signals are sent from the far left or right.

The couch potato crowd won't be thrilled to learn that the remote does not include power or eject buttons. Why such standard features were omitted escapes us, but that is far and away the worst thing we can say about an otherwise decent control. --*Mark Brooks*

Pros:

- Though very lightweight, the controller seems sturdily made and the buttons are large and comfy
- Uses any of the 4 Xbox game controller ports; rarely gets in the way
- Gives the Xbox cool DVD playback features
- Onscreen menu is very easy to use

Cons:

- No power or eject buttons
- A-B looping, subtitles, and language selects--as well as other features--are only accessible via onscreen menus
- Cannot use the remote from far to the left or right of the sensor

Amazon.com Product Description

Enables DVD movie playback functionality on the Xbox video game system. Includes a DVD remote control and an infrared receiver that plugs into an Xbox controller port. **Note: this item is required for DVD movie playback on Xbox.**

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10 of 10 people found the following review helpful:

★★★★★ **Nice upgrade**, January 2, 2003

Reviewer: **vr1000 (see more about me)** from Lincoln University, PA United States
I convinced my wife that we should get the Xbox because it can be used as a DVD player. I, of course, did not tell

her that we would have to pay approximately [\$] extra for the DVD movie player functionality.

Microsoft loses money on every Xbox sold. Their business model is to make their money back on their licensing fees from the games and the Xbox live service. That is why it cost extra for the DVD movie player kit. The price of the kit includes the licensing fee to the consortium that controls the DVD patent and the price of the hardware (remote and receiver).

The DVD player feature is quite nice. It plays smoothly and all the function buttons work well. The only reason I don't give the kit 5 stars is some DVD movies will not play in it but will play on the DVD player on my Mac Powerbook. The movie disc must be perfectly clean for it to play in the Xbox.

Was this review helpful to you? ☒ yes ☐ no

49 of 51 people found the following review helpful:

★★★★★ **Well designed little guy...**, December 29, 2001

Reviewer: **nebia (see more about me)** from Libertyville, IL United States

1. put the dongle into the 3rd controller slot, it fits best there.
2. the first time you pop in a video dvd disc, there will be a slight delay before anything happens. This is because the usb dongle containing the IR tranciever also contains a .5MB ROM used for *something* (yet unknown) in DVD playback.
3. this device is region specific -- do not buy one from the US if you live in the UK, it won't play region 2 DVD's.
4. the remote is surprisingly high quality. big, light, excellent overall button response and IR response.
5. no power or eject buttons, annoying but forgivable.
6. the dvd playback application included on the xbox puts out a great picture and fast-forwards and rewinds effortlessly.
7. much to my surprise, the xbox was able to handle several rented discs scratched to the point of being unplayable by me middle end sony player without a hitch.

8. if you don't have a DVD player, buy this thing. it's wonderful. yes, the money you're paying is mostly licensing, but c'mon, [amt] for a CD that costs at most [amt] in it's entirty? no complaints here.

Was this review helpful to you? ☒ yes ☐ no

All Customer Reviews

Average Customer Review: ★★★★★

Write an online review and share your thoughts with other customers.

★★★★★ **Just about essential**, January 16, 2004

Reviewer: **Rozz (see more about me)** from USA
This is almost absolutely essential, unless you hate DVDs or movies and don't want to watch any on your Xbox video game system. You cant watch DVDs without this. Even if you could watch DVDs without buying this, you would probably want the remote anyway, right? The Xbox is also a top notch DVD player. I also own a PS2, and while its not a bad game system, it doesnt have a very good DVD player. Xbox does. The remote is also designed very well and the easiest DVD player remote to use, ever. Its also has a attractive design. Get this. Its almost absolutely essential.. Unless you hate movies and DVDs of course. If you do, then dont buy this. If you like DVDs and want a top notch DVD player, then buy this today.

Was this review helpful to you? ☒ yes ☐ no

★★★★★ **A+ for the playback kit.**, January 10, 2004

Reviewer: **Brian (see more about me)** from WA
The idea of buying something extra for my 300 xbox was annoying after just purchasing it but now i believe it was well worth it. I love how you can put it on slow mo and the control is stylish its great and i have had no problems with it over the 3 years ive had it. GREAT!

Was this review helpful to you? ☒ yes ☐ no

★★★★★ **If You Don't Already Own A DVD, It's A Good Buy, Otherwise...**, December 27, 2003

Reviewer: Pedro (see more about me) from USA

I haven't had any problems yet with my Xbox DVD Playback Kit, but I should also tell you that I haven't tried many DVD's. While my experience has been flawless, I've heard several experiences that are the opposite. Basically, your Xbox is already capable of playing DVD's, you only need to purchase the Playback Kit which consists of two parts: 1) a receiver that you plug into one of your Xbox Controller ports, and 2) a remote control that you use to direct the DVD player. The remote comes with the usual assortment of DVD options but as others have pointed out, two annoying omissions are a power button and an eject button. A power button would be especially useful considering the Xbox hardware is practically a desktop computer and needs a little rest every now and then. I know friends that have had problems running some DVD's but the worst news I've heard about the Xbox DVD player is that Microsoft employs different vendors to manufacture its disc drives and some models are not as dependable as others. Therefore, you could be limiting your Xbox console's lifespan by using it as a DVD player as well as a video game system. The DVD Playback Kit is recommended for anyone that doesn't own a DVD player as its a cheaper alternative and provides quality picture and sound but if you already own a DVD player, I would keep it and stick with video games for the Xbox.

Was this review helpful to you?

☒ yes

☐ no

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(19) **United States**

(12) **Patent Application Publication**

Dernis et al.

(10) **Pub. No.: US 2003/0228911 A1**

(43) **Pub. Date:** Dec. 11, 2003

(54) DVD-ENABLING CODE SERVER AND
LOADER FOR A CONSOLE-BASED GAMING
SYSTEM

Publication Classification

(51) Int. Cl.⁷ A63F 13/00

(52) U.S. Cl. 463/43

(76) Inventors: **Mitchell S. Dernls**, Seattle, WA (US);
Sakphong Chanhai, Redmond, WA
(US); **Gary L. Gordon**, Redmond, WA
(US)

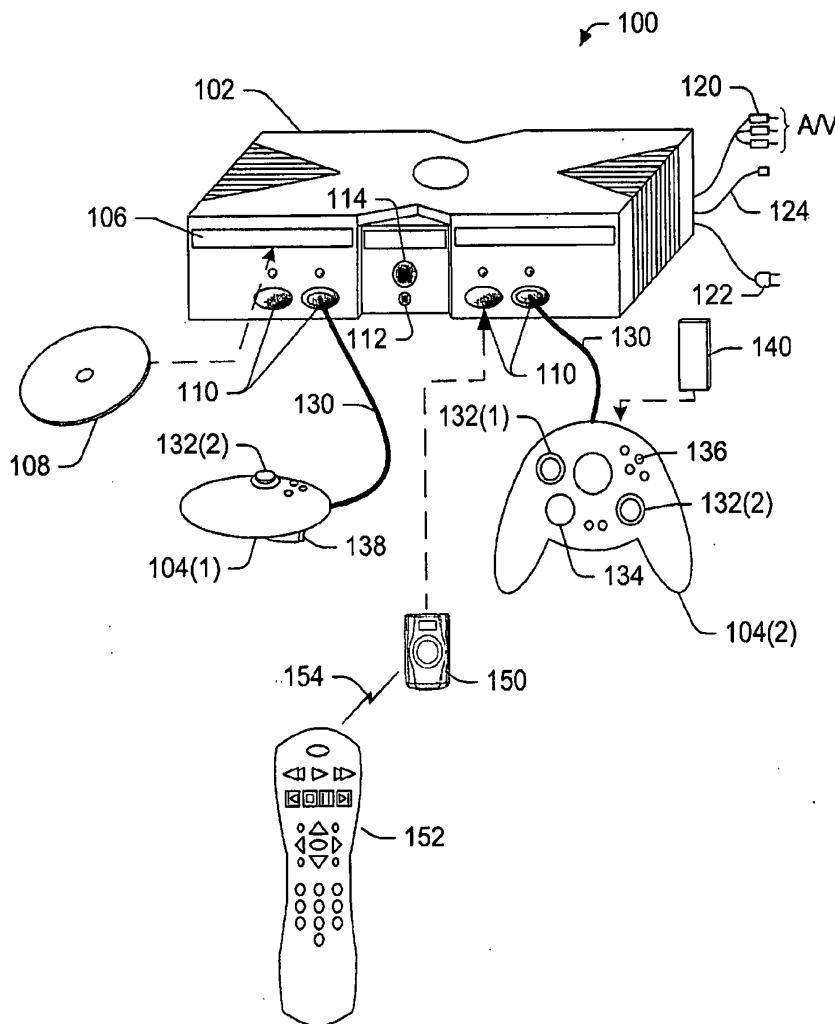
(57) **ABSTRACT**

Correspondence Address:
LEE & HAYES PLLC
421 W RIVERSIDE AVENUE SUITE 500
SPOKANE, WA 99201

A peripheral dongle is attachable to a console-based gaming system to facilitate playback of DVD movies on the gaming system. The dongle stores the DVD playback code. The gaming system executes software that facilitates transfer of the code from the dongle to the gaming system. The software utilizes a high-level bus protocol to support the transfer over a Universal Serial Bus (USB) and exposes an application program interface to enable calls into the protocol.

(21) Appl. No.: 10/163,949

(22) Filed: Jun. 5, 2002





US006565441B1

(12) **United States Patent**
Hames et al.

(10) **Patent No.:** **US 6,565,441 B1**
(45) **Date of Patent:** **May 20, 2003**

(54) **DEDICATED WIRELESS DIGITAL VIDEO DISC (DVD) CONTROLLER FOR VIDEO GAME CONSOLES**

6,238,289 B1 * 5/2001 Sobota et al. 463/39
6,280,327 B1 * 8/2001 Leifer et al. 463/39
6,289,165 B1 * 9/2001 Abecassis 386/46

(75) Inventors: **Edward L. Hames**, Peterborough, NH (US); **Richard Leifer**, Melville, NY (US)

(73) Assignee: **Arista Enterprises Inc.**, Hauppauge, NY (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 36 days.

(21) Appl. No.: **09/649,740**

(22) Filed: **Aug. 28, 2000**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/544,231, filed on Apr. 7, 2000.

(51) Int. Cl.⁷ **G06F 17/00; G06F 19/00**

(52) U.S. Cl. **463/39; 463/37**

(58) Field of Search **463/37, 38, 39; 434/351**

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* cited by examiner

Primary Examiner—**Michael O'Neill**

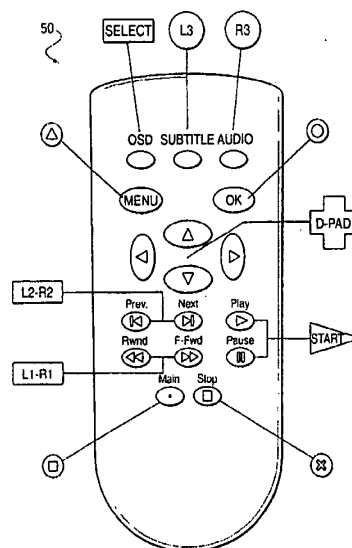
Assistant Examiner—**Julie Brocketti**

(74) Attorney, Agent, or Firm—**Keusey, Tutunjian & Bitetto, P.C.**

(57) ABSTRACT

A wireless interface and dedicated digital video disc (DVD) controller for video game consoles capable of playing DVDs. An adapter is inserted into one of the communication ports of the game console and provides a wireless communication receiver for receiving and inputting control commands into the game console. A dedicated DVD remote control device includes a wireless transmitter for wirelessly transmitting DVD player control functions to the game console via the adapter and thereby enables wireless control of the DVD functions of the game console. The control buttons on the dedicated DVD remote control correspond in function to the wired game controller buttons that would otherwise control the DVD functions of the game console, but have an appearance to the user that corresponds to a standard DVD player remote control. Thus, the user need not navigate through menus or otherwise determine the DVD player functions of the wired game controller buttons with symbol designations used for various functions of game play.

15 Claims, 8 Drawing Sheets





US 20030027633A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0027633 A1****Hames**(43) **Pub. Date:****Feb. 6, 2003**(54) **DEDICATED WIRELESS DIGITAL VIDEO
DISC (DVD) CONTROLLER FOR VIDEO
GAME CONSOLES**(76) **Inventor: Edward L. Hames, Peterborough, NH
(US)****Correspondence Address:****KEUSEY, TUTUNJIAN & BITETTO, P.C.
14 VANDERVENTER AVENUE, SUITE 128
PORT WASHINGTON, NY 11050 (US)**(*) **Notice:** This is a publication of a continued prosecution application (CPA) filed under 37 CFR 1.53(d).(21) **Appl. No.: 09/544,231**(22) **Filed: Apr. 7, 2000****Publication Classification**(51) **Int. Cl.⁷ A63F 9/24**(52) **U.S. Cl. 463/39**(57) **ABSTRACT**

A wireless interface and dedicated digital video disc (DVD) controller for video game consoles capable of playing DVDs. An adapter is inserted into one of the game controller ports of the game console and provides a wireless communication receiver for receiving and inputting control commands into the game console. A dedicated DVD remote control device includes a wireless transmitter for wirelessly transmitting DVD player control functions to the game console via the adapter and thereby enables wireless control of the DVD functions of the game console. The control buttons on the dedicated DVD remote control correspond in function to the wired game controller buttons that would otherwise control the DVD functions of the game console, but have an appearance to the user that corresponds to a standard DVD player remote control. Thus, the user need not navigate through menus or otherwise determine the DVD player functions of the wired game controller buttons with symbol designations used for various functions of game play.



US006565440B2

(12) **United States Patent**
Hames

(10) **Patent No.:** **US 6,565,440 B2**

(45) **Date of Patent:** ***May 20, 2003**

(54) **DEDICATED WIRELESS DIGITAL VIDEO DISC (DVD) CONTROLLER FOR VIDEO GAME CONSOLES**

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Lawson, Stephen. "Infrared wireless LANs offer switched bandwidth." InfoWorld Electric. [Mar. 3, 1999]. Retrieved from the Internet on [Jan. 28, 2002]. URL<<http://www.clarinetsys.com/site/press-p...page/ind-review-pages/reviews-page3.html>>.*

* cited by examiner

Primary Examiner—Michael O'Neill

Assistant Examiner—Julie Kasick

(74) *Attorney, Agent, or Firm*—Keusey, Tutunjian & Bitetto, P.C.

(75) **Inventor:** **Edward L. Hames, Peterborough, NH (US)**

(73) **Assignee:** **Arista Enterprises Inc., Hauppauge, NY (US)**

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) **Appl. No.:** **09/544,231**

(22) **Filed:** **Apr. 7, 2000**

(65) **Prior Publication Data**

US 2003/0027633 A1 Feb. 6, 2003

(51) **Int. Cl.⁷** **G06F 17/00; G06F 19/00**

(52) **U.S. Cl.** **463/39; 463/37**

(58) **Field of Search** **463/37, 38, 39; 434/351**

(56) **References Cited**

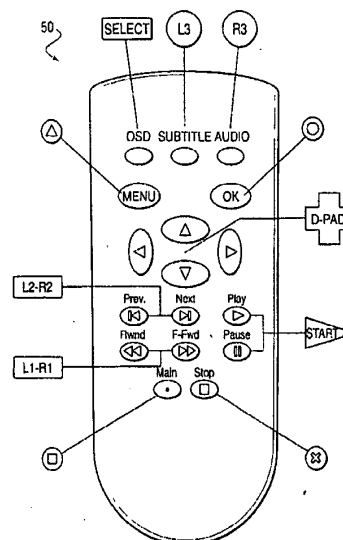
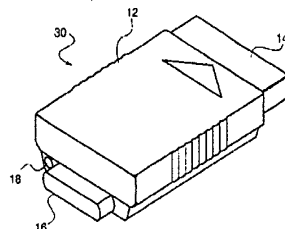
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6,213,880 B1 * 4/2001 Sim 463/37
6,238,289 B1 * 5/2001 Sobota et al. 463/39
6,280,327 B1 * 8/2001 Leifer et al. 463/39

(57) **ABSTRACT**

A wireless interface and dedicated digital video disc (DVD) controller for video game consoles capable of playing DVDs. An adapter is inserted into one of the game controller ports of the game console and provides a wireless communication receiver for receiving and inputting control commands into the game console. A dedicated DVD remote control device includes a wireless transmitter for wirelessly transmitting DVD player control functions to the game console via the adapter and thereby enables wireless control of the DVD functions of the game console. The control buttons on the dedicated DVD remote control correspond in function to the wired game controller buttons that would otherwise control the DVD functions of the game console, but have an appearance to the user that corresponds to a standard DVD player remote control. Thus, the user need not navigate through menus or otherwise determine the DVD player functions of the wired game controller buttons with symbol designations used for various functions of game play.

16 Claims, 3 Drawing Sheets

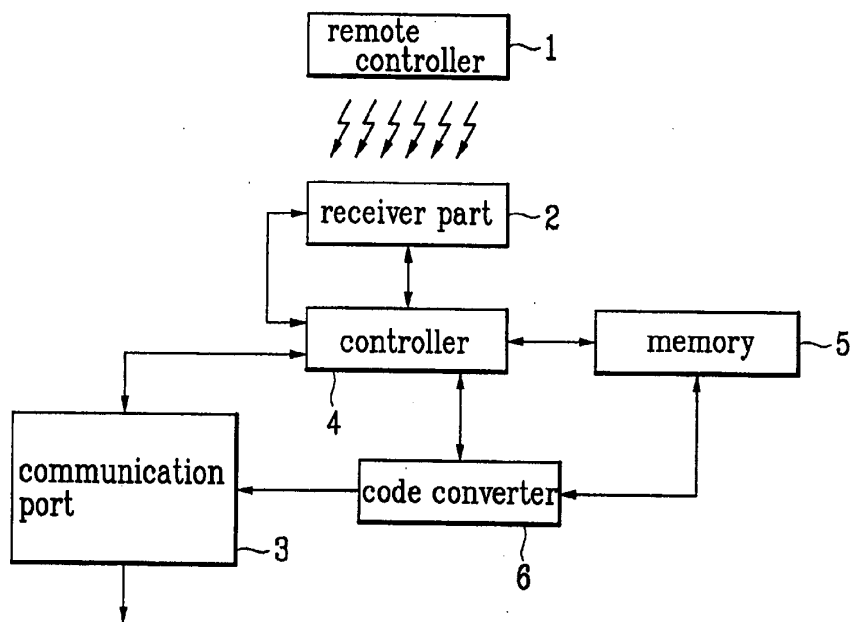




US 20020024617A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0024617 A1****Kwon**(43) **Pub. Date: Feb. 28, 2002**(54) **REMOTE-CONTROLLABLE MEDIA DEVICE
AND METHOD OF OPERATING
PROPERAL DEVICES USING THE SAME****Publication Classification**(51) **Int. Cl.⁷ H04N 5/44**(52) **U.S. Cl. 348/734**(76) **Inventor: Il Gun Kwon, Seoul (KR)****Correspondence Address:
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747 (US)**(21) **Appl. No.: 09/942,710**(22) **Filed: Aug. 31, 2001**(30) **Foreign Application Priority Data****Aug. 31, 2000 (KR) 2000-51239**(57) **ABSTRACT**

Disclosed is a remote-controllable media device and method of operating peripheral devices using the same including the steps of monitoring whether a remote code is received from a remote controller, verifying that a present external input source mode corresponds to which one of the peripheral media devices when the remote code is received from the remote controller, and converting the received code into a code corresponding to the present external input source mode when the peripheral media device corresponding to the present external input source mode is connected to the media device and then transferring the converted code to the peripheral media device corresponding to the present external input source mode.



Set	Items	Description
S1	18	AU=(LEIFER R? OR LEIFER, R? OR LEIFER R OR LEIFER, R OR LE- IFER R. OR LEIFER, R. OR LEIFER RICHARD OR LEIFER, RICHARD)
S2	15	AU=(HAMES E? OR HAMES, E? OR HAMES E OR HAMES, E OR HAMES - E. OR HAMES, E. OR HAMES EL OR HAMES, EL OR HAMES E.L. OR HAM- ES, E.L. OR HAMES EDWARD OR HAMES, EDWARD)
S3	21214	DVD OR DVDS OR DIGITAL() (VIDEO OR VERSATILE) () (DISC? OR DI- SK?)
S4	588	(VIDEO? ? OR GAME? ?) (2N)CONSOLE?
S5	5	S1:S2 AND S3:S4

? show files

File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)
(c) 2004 JPO & JAPIO

File 350:Derwent WPIX 1963-2004/UD,UM &UP=200404
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? pause

5/3,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015668646 **Image available**
WPI Acc No: 2003-730833/200369
Related WPI Acc No: 2000-039711; 2003-311906; 2003-729728
XRPX Acc No: N03-584181

Wireless game control unit for video game system, has wireless communication protocol that controls transmission and reception of wireless signals between controller and wireless adaptor
Patent Assignee: LEIFER A E (LEIF-I); LEIFER R (LEIF-I); PENG C (PENG-I)
Inventor: LEIFER A E; LEIFER R ; PENG C
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030144056	A1	20030731	US 9823813	A	19980213	200369 B
			US 9892489	A	19980605	
			US 2000708195	A	20001108	
			US 2003365990	A	20030213	

Priority Applications (No Type Date): US 2000708195 A 20001108; US 9823813 A 19980213; US 9892489 A 19980605; US 2003365990 A 20030213

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030144056	A1	23	A63F-013/02	CIP of application US 9823813
				CIP of application US 9892489
				Cont of application US 2000708195
				CIP of patent US 6280327

...Inventor: LEIFER R

Abstract (Basic):
... between a controller (20) and a wireless adaptor. The wireless adaptor is connected to a **game console** through a memory slot.

5/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015667541 **Image available**
WPI Acc No: 2003-729728/200369
Related WPI Acc No: 2000-039711; 2003-311906; 2003-730833
XRPX Acc No: N03-583224

Wireless game control unit for video game systems, has communication protocol for controlling transmission and reception of signals between controller and wireless adapter

Patent Assignee: ARISTA ENTERPRISES INC (ARIS-N)
Inventor: LEIFER A E; LEIFER R ; PENG C
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6585596	B1	20030701	US 9823813	A	19980213	200369 B
			US 9892489	A	19980605	
			US 2000708195	A	20001108	

Priority Applications (No Type Date): US 2000708195 A 20001108; US 9823813 A 19980213; US 9892489 A 19980605

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6585596	B1	21	A63F-013/06		CIP of application US 9823813
					CIP of application US 9892489
					CIP of patent US 6280327

...Inventor: LEIFER R

Abstract (Basic):

... a wireless transmitter circuitry for transmitting game control information. A wireless adapter connected to the **game console** (12) through a memory slot and a receiver circuitry receiving information from the controller (20...
... **Game console** (12

5/3,K/3 (Item 3 from file: 350)
DIALOG(R) File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015593635 **Image available**
WPI Acc No: 2003-655790/200362
Related WPI Acc No: 2003-341865
XRPX Acc No: N03-522233

Remote control assembly for digital videodisk function in console video game system, uses adapter connected to game console to receive commands from remote control and to control game console
Patent Assignee: ARISTA ENTERPRISES INC (ARIS-N)

Inventor: **HAMES E L ; LEIFER R**

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6565441	B1	20030520	US 2000544231	A	20000407	200362 B
			US 2000649740	A	20000828	

Priority Applications (No Type Date): US 2000649740 A 20000828; US 2000544231 A 20000407

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6565441	B1	13	G06F-017/00		CIP of application US 2000544231

Remote control assembly for digital videodisk function in console video game system, uses adapter connected to game console to receive commands from remote control and to control game console
Inventor: **HAMES E L ...**

... LEIFER R

Abstract (Basic):

... A wireless adapter is inserted into a communication port of the **video game console** to receive the commands from a dedicated digital videodisk (DVD) remote control transmitter (50) and to control the DVD function. The remote control transmitter has DVD player control buttons and does not have any control over game functions.
... For remote control of digital videodisk (DVD), compact disc (CD) in a **console video game** system...

...Does not require additional menus or button association to **game console** by user...

Technology Focus:

... The adapter is connected to **game console** using a memory slot by universal serial bus (USB) port, a IEEE 1394 FireWire plug...

5/3,K/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015280934 **Image available**
WPI Acc No: 2003-341865/200332
Related WPI Acc No: 2003-655790
XRPX Acc No: N03-273508

Wireless digital video disk player controller for video game console , includes infrared remote control which transmits DVD player control commands to receiver for controlling DVD player functions of video game console

Patent Assignee: HAMES E L (HAME-I); ARISTA ENTERPRISES INC (ARIS-N)

Inventor: **HAMES E L**

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030027633	A1	20030206	US 2000544231	A	20000407	200332 B
US 6565440	B2	20030520	US 2000544231	A	20000407	200336

Priority Applications (No Type Date): US 2000544231 A 20000407

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
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US 20030027633	A1	8	A63F-009/24	
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US 6565440	B2		G06F-017/00	
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Wireless digital video disk player controller for video game console , includes infrared remote control which transmits DVD player control commands to receiver for controlling DVD player functions of video game console

Inventor: **HAMES E L**

Abstract (Basic):

... receiver (16) has one end inserted into one of the game controller ports of the **video game console** . An infrared remote control transmits **digital video disk (DVD)** player control commands to the receiver for controlling the **DVD player functions of the video game console** .

... For wireless control of **digital video disk (DVD)** player functions of **video game console** of home entertainment system (claimed...

...The dedicated wireless **DVD controller for video game console** does not require additional menus or button input from the user. **Video game console** is capable of detecting the type of disk inserted and automatically switch into operating mode...

5/3,K/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.

015250980 **Image available**
WPI Acc No: 2003-311906/200330
Related WPI Acc No: 2000-039711; 2003-729728; 2003-730833
XRPX Acc No: N03-248352

Wireless control unit for home video game system, has console

interface connected to game console through one of multiple
controller port for receiving game information from controller
Patent Assignee: LEIFER A E (LEIF-I); LEIFER R (LEIF-I); PENG C (PENG-I);
ARISTA ENTERPRISES INC (ARIS-N)

Inventor: LEIFER A E; LEIFER R ; PENG C

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030003993	A1	20030102	US 9823813	A	19980213	200330 B
			US 9892489	A	19980605	
			US 2000708213	A	20001108	
			US 2002194807	A	20020715	
US 6659871	B2	20031209	US 9823813	A	19980213	200381
			US 9892489	A	19980605	
			US 2000708213	A	20001108	
			US 2002194807	A	20020715	

Priority Applications (No Type Date): US 2000708213 A 20001108; US 9823813
A 19980213; US 9892489 A 19980605; US 2002194807 A 20020715

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030003993	A1	21	A63F-009/24	CIP of application US 9823813 CIP of application US 9892489 Cont of application US 2000708213 CIP of patent US 6280327
US 6659871	B2		A63F-013/06	CIP of application US 9823813 CIP of application US 9892489 Cont of application US 2000708213 CIP of patent US 6280327

Wireless control unit for home video game system, has console
interface connected to game console through one of multiple
controller port for receiving game information from controller
...Inventor: LEIFER R

Abstract (Basic):

... A console interface (50) connected to a game console (12)
through one of multiple controller ports, has wireless receiver
circuitry, preferably for IR transmission...
... game console (12

Set	Items	Description
S1	2	AU=(LEIFER R? OR LEIFER, R? OR LEIFER R OR LEIFER, R OR LEIFER R. OR LEIFER, R. OR LEIFER RICHARD OR LEIFER, RICHARD)
S2	4	AU=(HAMES E? OR HAMES, E? OR HAMES E OR HAMES, E OR HAMES - E. OR HAMES, E. OR HAMES EL OR HAMES, EL OR HAMES E.L. OR HAMES, E.L. OR HAMES EDWARD OR HAMES, EDWARD)
S3	17788	DVD OR DVDS OR DIGITAL() (VIDEO OR VERSATILE) () (DISC? OR DISK?)
S4	1110	(VIDEO? ? OR GAME? ?) (2N) CONSOLE?
S5	0	S1:S2 AND S3:S4

? show files

File 348:EUROPEAN PATENTS 1978-2004/Jan W03
(c) 2004 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20040115,UT=20040108
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Set	Items	Description
S1	94	AU=(LEIFER R? OR LEIFER, R? OR LEIFER R OR LEIFER, R OR LE- IFER R. OR LEIFER, R. OR LEIFER RICHARD OR LEIFER, RICHARD)
S2	6	AU=(HAMES E? OR HAMES, E? OR HAMES E OR HAMES, E OR HAMES - E. OR HAMES, E. OR HAMES EL OR HAMES, EL OR HAMES E.L. OR HAM- ES, E.L. OR HAMES EDWARD OR HAMES, EDWARD)
S3	24386	DVD OR DVDS OR DIGITAL() (VIDEO OR VERSATILE) () (DISC? OR DI- SK?)
S4	2719	(VIDEO? ? OR GAME? ?) (2N)CONSOLE?
S5	0	S1:S2 AND S3:S4

? show files

File 48:SPORTDiscus 1962-2004/Jan
(c) 2004 Sport Information Resource Centre

File 50:CAB Abstracts 1972-2004/Dec
(c) 2004 CAB International

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(c) 1998 Inst for Sci Info

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(c) 2004 FIZ TECHNIK

File 99:Wilson Appl. Sci & Tech Abs 1983-2003/Nov
(c) 2003 The HW Wilson Co.

File 474:New York Times Abs 1969-2004/Jan 20
(c) 2004 The New York Times

File 475:Wall Street Journal Abs 1973-2004/Jan 20
(c) 2004 The New York Times

File 473:FINANCIAL TIMES ABSTRACTS 1998-2001/APR 02
(c) 2001 THE NEW YORK TIMES

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Set	Items	Description
S1	28	AU=(LEIFER R? OR LEIFER, R? OR LEIFER R OR LEIFER, R OR LE- IFER R. OR LEIFER, R. OR LEIFER RICHARD OR LEIFER, RICHARD)
S2	0	AU=(HAMES E? OR HAMES, E? OR HAMES E OR HAMES, E OR HAMES - E. OR HAMES, E. OR HAMES EL OR HAMES, EL OR HAMES E.L. OR HAM- ES, E.L. OR HAMES EDWARD OR HAMES, EDWARD)
S3	414721	DVD OR DVDS OR DIGITAL() (VIDEO OR VERSATILE)() (DISC? OR DI- SK?)
S4	72059	(VIDEO? ? OR GAME? ?) (2N)CONSOLE?
S5	0	S1:S2 AND S3:S4
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File	9:Business & Industry(R)	Jul/1994-2004/Jan 19 (c) 2004 Resp. DB Svcs.
File	15:ABI/Inform(R)	1971-2004/Jan 21 (c) 2004 ProQuest Info&Learning
File	16:Gale Group PROMT(R)	1990-2004/Jan 20 (c) 2004 The Gale Group
File	20:Dialog Global Reporter	1997-2004/Jan 21 (c) 2004 The Dialog Corp.
File	80:TGG Aerospace/Def.Mkts(R)	1986-2004/Jan 20 (c) 2004 The Gale Group
File	148:Gale Group Trade & Industry DB	1976-2004/Jan 20 (c)2004 The Gale Group
File	160:Gale Group PROMT(R)	1972-1989 (c) 1999 The Gale Group
File	621:Gale Group New Prod.Annou.(R)	1985-2004/Jan 20 (c) 2004 The Gale Group
File	635:Business Dateline(R)	1985-2004/Jan 21 (c) 2004 ProQuest Info&Learning
File	636:Gale Group Newsletter DB(TM)	1987-2004/Jan 20 (c) 2004 The Gale Group
File	646:Consumer Reports	1982-2004/Jan (c) 2004 Consumer Union
File	629:EIU:BUS. Newsletters	2004/Jan W2 (c) 2004 Economist Intelligence Unit
File	649:Gale Group Newswire ASAP(TM)	2004/Jan 09 (c) 2004 The Gale Group
File	810:Business Wire	1986-1999/Feb 28 (c) 1999 Business Wire
File	813:PR Newswire	1987-1999/Apr 30 (c) 1999 PR Newswire Association Inc
File	47:Gale Group Magazine DB(TM)	1959-2004/Jan 20 (c) 2004 The Gale group
File	141:Readers Guide	1983-2004/Dec (c) 2004 The HW Wilson Co
File	482:Newsweek	2000-2004/Jan 14 (c) 2004 Newsweek, Inc.
File	484:Periodical Abs Plustext	1986-2004/Jan W3 (c) 2004 ProQuest
File	570:Gale Group MARS(R)	1984-2004/Jan 20 (c) 2004 The Gale Group
File	647:CMP Computer Fulltext	1988-2004/Jan W2 (c) 2004 CMP Media, LLC
File	624:McGraw-Hill Publications	1985-2004/Jan 21 (c) 2004 McGraw-Hill Co. Inc
File	369:New Scientist	1994-2004/Jan W2 (c) 2004 Reed Business Information Ltd.
File	370:Science	1996-1999/Jul W3 (c) 1999 AAAS
File	610:Business Wire	1999-2004/Jan 21

(c) 2004 Business Wire.
File 613:PR Newswire 1999-2004/Jan 21
(c) 2004 PR Newswire Association Inc
File 609:Bridge World Markets 2000-2001/Oct 01
(c) 2001 Bridge
File 809:Bridge World Markets News 1989-1999/Dec 31
(c) 1999 Bridge
File 392:Boston Herald 1995-2004/Jan 20
(c) 2004 Boston Herald
File 471:New York Times Fulltext 90-Day 2004/Jan 20
(c) 2004 The New York Times
File 532:Bangor Daily News 1996-2004/Jan 21
(c) 2004 Bangor Daily News
File 631:Boston Globe 1980-2004/Jan 20
(c) 2004 Boston Globe
File 633:Phil.Inquirer 1983-2004/Jan 17
(c) 2004 Philadelphia Newspapers Inc
File 638:Newsday/New York Newsday 1987-2004/Jan 19
(c) 2004 Newsday Inc.
File 718:Pittsburgh Post-Gazette Jun 1990-2004/Jan 21
(c) 2004 PG Publishing
File 719:(Albany) The Times Union Mar 1986-2004/Jan 16
(c) 2004 Times Union
File 731:Philad.Dly.News 1983- 2003/Dec 30
(c) 2003 Philadelphia Newspapers Inc
File 733:The Buffalo News 1990- 2004/Jan 19
(c) 2004 Buffalo News
File 738:(Allentown) The Morning Call 1990-2004/Jan 20
(c) 2004 Morning Call
File 743:(New Jersey)The Record 1989-2004/Jan 20
(c) 2004 No.Jersey Media G Inc

Set	Items	Description
S1	21789	DIGITAL() (VIDEO OR VERSATILE) () (DISK? OR DISC?) OR DVD OR - DVDS OR D()V()D
S2	6521890	PLAY??? OR PLAYER? ? OR SYSTEM? ? OR UNIT? ? OR COMPONENT? ?
S3	8499	(ARCADE? OR VIDEO? OR GAME?) (2N) (CONSOLE? OR CONTROLLER?) - OR GAMECONSOLE? OR VIDEOGAME?
S4	77	XBOX OR X()BOX OR GAMECUBE OR SEGA OR DREAMCAST OR DREAM()- CAST OR GAMEBOY OR GAME()BOY
S5	1253	NINTENDO OR PS2 OR PS()2 OR PSX OR PLAYSTATION? OR PLAY()S- TATION?
S6	100457	(REMOTE? OR WIRELESS OR WIRE()LESS OR RADIO? OR RADIOFREQU- ENCY OR UNIVERSAL OR RF OR IR OR INFRARED) (2N) (CONTROL? ? OR - CONTROLLER? OR TRANSMITTER? OR COMMUNICATOR?)
S7	74958	DEDICATED OR STANDALONE OR STAND()ALONE OR EXCLUSIV?
S8	1011375	IC=(A63F? OR G05B? OR H04N?)
S9	21789	S1 OR S1(5N)S2
S10	124	S9 AND S3:S5
S11	18	S10 AND (S6 OR S6(5N)S7)
S12	12	S11 AND S8
S13	18	S11:S12
S14	18	IDPAT (sorted in duplicate/non-duplicate order)

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File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)
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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200404
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14/3,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015593635 **Image available**
WPI Acc No: 2003-655790/200362
Related WPI Acc No: 2003-341865
XRPX Acc No: N03-522233

Remote control assembly for digital videodisk function in console
video game system, uses adapter connected to game console to
receive commands from remote control and to control game console

Patent Assignee: ARISTA ENTERPRISES INC (ARIS-N)

Inventor: HAMES E L; LEIFER R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6565441	B1	20030520	US 2000544231	A	20000407	200362 B
			US 2000649740	A	20000828	

Priority Applications (No Type Date): US 2000649740 A 20000828; US
2000544231 A 20000407

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6565441	B1	13	G06F-017/00	CIP of application US 2000544231

Remote control assembly for digital videodisk function in console
video game system, uses adapter connected to game console to
receive commands from remote control and to control game console

Abstract (Basic):

... A wireless adapter is inserted into a communication port of the
video game console to receive the commands from a dedicated
digital videodisk (DVD) remote control transmitter (50) and to
control the DVD function. The remote control transmitter has
DVD player control buttons and does not have any control over game
functions.

... For remote control of digital videodisk (DVD), compact
disc (CD) in a console video game system...

...Does not require additional menus or button association to game
console by user...

...The figure shows the top view of a remote controller .

...

... remote control transmitter (50

Technology Focus:

... The adapter is connected to game console using a memory slot
by universal serial bus (USB) port, a IEEE 1394 FireWire plug...

14/3,K/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015280934 **Image available**
WPI Acc No: 2003-341865/200332
Related WPI Acc No: 2003-655790
XRPX Acc No: N03-273508

Wireless digital video disk player controller for video game console , **includes** infrared remote control which transmits DVD player control commands to receiver for controlling DVD player functions of video game console

Patent Assignee: HAMES E L (HAME-I); ARISTA ENTERPRISES INC (ARIS-N)
Inventor: HAMES E L
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030027633	A1	20030206	US 2000544231	A	20000407	200332 B
US 6565440	B2	20030520	US 2000544231	A	20000407	200336

Priority Applications (No Type Date): US 2000544231 A 20000407

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030027633	A1	8	A63F-009/24	
US 6565440	B2		G06F-017/00	

Wireless digital video disk player controller for video game console , **includes** infrared remote control which transmits DVD player control commands to receiver for controlling DVD player functions of video game console

Abstract (Basic):

... An infrared receiver (16) has one end inserted into one of the game controller ports of the video game console . An infrared remote control transmits digital video disk (DVD) player control commands to the receiver for controlling the DVD player functions of the video game console .

... For wireless control of digital video disk (DVD) player functions of video game console of home entertainment system (claimed...

...The dedicated wireless DVD controller for video game console does not require additional menus or button input from the user. Video game console is capable of detecting the type of disk inserted and automatically switch into operating mode...

International Patent Class (Main): A63F-009/24 ...

14/3,K/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014369173 **Image available**
WPI Acc No: 2002-189875/200225
XRPX Acc No: N02-143922

Wireless communication adapter for computer peripherals, legacy equipments, enables communication of legacy equipment which does not contain wireless circuit with new equipment that contains integrated wireless circuit

Patent Assignee: SMITH G R (SMIT-I)

Inventor: SMITH G R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 2357663	A	20010627	GB 9929847	A	19991220	200225 B

Priority Applications (No Type Date): GB 9929847 A 19991220

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
GB 2357663	A	32	H04B-001/38	

Abstract (Basic):

... a) **Transmitter** unit of **wireless** communication adapter...
...as printers, facsimile, modems, scanner, and legacy equipments such as
video recorders, set top boxes, **games console**, **digital versatile**
disk (DVD) player and musical instrument...

...The figure shows the configuration of the **wireless** communication
adapter **transmitter** unit used for video distribution...

(12) UK Patent Application (19) GB (11) 2 357 663 (13) A

(43) Date of A Publication 27.06.2001

(21) Application No 9929847.3

(22) Date of Filing 20.12.1999

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(51) INT CL⁷
H04B 1/38 // H04Q 7/32

(52) UK CL (Edition S)
H4L LRAX L215

(56) Documents Cited
GB 2334645 A GB 2279195 A GB 2268856 A
US 5920806 A US 5610941 A US 5452291 A
US 5198903 A US 4916532 A US 4845751 A

(58) Field of Search
UK CL (Edition R) H4B BK10 , H4F FAAN , H4L LCAC
LDA LED LEP LERX
INT CL⁷ H04B 1/18 1/20 1/38 10/10 , H04N 5/38 5/44
7/10 7/14 7/173 , H04Q 7/32
ONLINE: WPI, PAJ, EPODOC

(54) Abstract Title
Wireless communication adaptor

(57) A wireless communication adaptor is capable of transmitting and receiving data or control signals in order to replace wired means of interfacing together pieces of equipment such as musical instruments, computer peripherals and audio equipment. The adaptor may be programmable and have interchangeable interface and connector means to allow the adaptor to be reconfigured and connected to various pieces of equipment. This allows equipment not originally made for the wireless communications standards such as the Bluetooth specification to be upgraded for use with wireless systems. In an embodiment the adaptor comprises SCART and coaxial input connectors, and means for re-formatting a UHF/VHF signal so that signals from a video device 11-17 may be wirelessly transmitted to a plurality of receivers. The adaptor also comprises output SCART and coaxial connectors to allow signals to bypass the unit and be output to a local television 12.

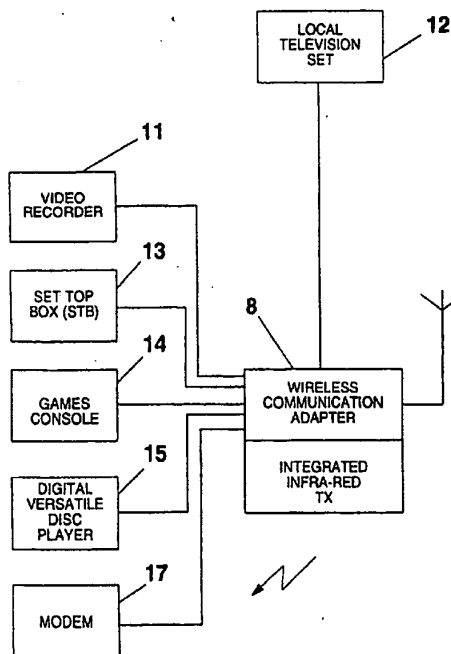


Fig 9

GB 2 357 663 A

CLAIMS

1. A wireless communications adapter or module, capable of receiving and transmitting data and control messages, having interchangeable interface and connector means to allow the wireless adapter to be reconfigured and connected to various legacy equipment which have different connector and interface means, the wireless adapter or module being connected directly to the legacy equipment via the interface connector means, the legacy equipment being equipment which has no wireless circuitry, including any radio frequency or infra-red circuitry means, integrated as standard for transferring data between the legacy equipment and previously received and transmitted control and data messages via cable means, the cable being inserted into connector means on the legacy equipment between the legacy equipment and remote units, the wireless module means therefore replacing the cable means as the method of communication between the units allowing legacy equipment to communicate with other legacy equipment via the said wireless means or allowing legacy equipment to communicate with new equipment that contains integrated wireless means.

2. A wireless communications adapter or module as claimed in claim 1 which employs programmable logic to implement the interface circuitry allowing the wireless adapter or module to be reconfigured to operate with different interface standards, the reconfiguration data for the programmable logic being stored in memory means on the wireless module and loaded into the programmable logic device by the host processor on the wireless module, the desired interface type and functionality being selected by switch selector means within the wireless module.

3. A wireless communications as claimed in claim 2 in which the programmable logic used to implement the interface circuitry can be reconfigured via the inherent wireless means from a remote source.

4. A wireless communications adapter or module as claimed in any preceding claim in which the wireless adapter or module derives its power from either an internal power source, such as batteries or re-chargeable batteries, or from the legacy equipment or from external power supply means.

5. A wireless communication adapter or module as claimed in any preceding claim which can be connected internally to either legacy equipment or new equipment in which the wireless communication adapter or module is implemented on a printed circuit board or daughter board and can be inserted and interfaced directly into a printed circuit board slot on the motherboard within the equipment.

6. A wireless communication adapter or module as claimed in claim 4 which can be connected internally to either legacy equipment or new equipment in which the wireless communication adapter or module is implemented on a printed circuit board or mezzanine card with connector means and can be

connected and interface directly into a printed circuit board connector on the motherboard within the equipment.

7. A wireless communication adapter or module as claimed in claim 4 which can be connected internally to either legacy equipment or new equipment in which the wireless communication adapter or module is implemented on as a PCMCIA / PC Card format and can be connected and interface directly into a printed circuit board connector on the motherboard within the equipment.

8. A wireless communication adapter or module as claimed in any preceding claim in more than one communication channel is supported, the various communications channels being able to transfer either non real time data and or real time data, the different communication channels being time multiplexed on the main wireless channel between the adapter and corresponding remote unit.

9. A wireless communications adapter or module as claimed in any preceding claim in which the wireless protocol employed to transfer control and data messages between the adapter and other remote equipment is based on the Bluetooth Communication standard, or the HomeRF standard or IEEE 802.11 wireless LAN Standard.

10. A wireless communication adapter or module as claimed in any preceding claim in which the wireless adapter module is not connected directly to the legacy equipment using the connector means, but by short cable means which links the connector on the legacy equipment to the connector on the wireless adapter or module.

11. A wireless communication adapter or module as claimed in any preceding claim which interfaces to legacy portable equipment means and allows a signal source from the said portable equipment to be transmitted to a remote unit, the remote unit being either legacy equipment that also has a wireless communication adapter or module for transferring control and data between itself and the portable equipment, or equipment that is wireless enabled and has the wireless circuitry integrated as part of the equipment.

12. A wireless communications adapter or module as claimed in claim 11 in which the wireless communication adapter or module is configured to operate with either a portable compact disc player, or a portable mini disc player, or a cassette player, or a "Walkman", or a portable radio receiver, or a Personal Design Assistant (PDA), or a mobile phone or a lap top personal computer, which can then transfer the source signal or data to a wireless enabled hi-fidelity amplifier or system allowing the portable legacy equipment to be used as part of a non portable hi-fidelity system, effectively allowing the portable legacy equipment to have dual purpose.

13. A wireless communication adapter or module as claimed in claim 12 which is used to connect a legacy headphone set to the wireless adapter or

module, enabling the legacy headset to be used in a wireless environment where the source signal or data is transmitted by the said wireless means from either legacy equipment which is wireless enabled with a said wireless communication adapter or module, or equipment which has the wireless circuitry integrated as part of the equipment, to the legacy headset allowing the user to move around freely as long as the user is within reception range of the source signal and the signal is not corrupted.

14. A wireless communication adapter or module as claimed in claim 13 in which the wireless communication adapter or module can also receive incoming phone calls for a wireless enabled mobile phone or line connected phone, or from mobile phone or land line connected phone which is connected a remote wireless communication adapter or module allowing the user to be interrupted and the call directed to the headset so the user can answer the call, the original music signal being stopped until the phone call is finished.

15. A wireless communication adapter or module as claimed in claim 14 in which the wireless adapter or module transmits a message automatically when an incoming phone call is received, to the remote wireless adapter or module, which can be either integrated or separate, instructing the music source to be paused at that particular place until the phone call is finished, when another message is automatically or manually sent to the remote unit to instruct the music source to begin playing again from the paused position.

16. A wireless communication adapter or module as claimed in claim 12 or claim 13 in which the wireless communication adapter or module has the connection means to allow the connection of more than one portable legacy equipment and can select the signal source from any of the connected equipment.

17. A wireless communication adapter or module as claimed in claims 11 to 14 in which there is an integrated keypad means that allows the user to control the remote equipment and select the desired functionality.

18. A wireless communication adapter or module as claimed in any preceding claim in which an additional application processor, controller and or coding / decoding circuitry is implemented, allowing some or all the application processing to be performed locally to the wireless communication adapter or module and hence off loading the required processing from the processing means implemented in the legacy equipment or attached equipment.

19. A wireless communication adapter or module in which the adapter has SCART and or coax connectors for connection to the output of either a legacy set top box or legacy video recorder apparatus via the set top box's or video recorder's SCART connector and or UHF / VHF coax connector output means to allow the transmission and distribution of the video, audio and data signals from the video program being played by the video recorder apparatus

and or transmission and distribution of the selected television program via the video recorder terrestrial decoder or set top box to one or more corresponding wireless communication adapter receiver apparatus, the adapter having encoding means to encode the video, audio and data information from the SCART input connector and formatting and transmission means to transmit the encoded data from the SCART input connector to one or more wireless adapter receiver units, the adapter also having demodulator means to demodulate the UHF / VHF signal, such as a PAL, NTSC or SECAM formatted signal, input from the video recorder or set top box, this demodulated signal being re-formatted, encoded for transmission using the local wireless link protocol, the signals from the SCART input connector and or from the input coax connector being also output directly to the adapter's output SCART connector and output coax connector to allow the signals to effectively by-pass the unit and be output to a local television or display apparatus.

20. A wireless communication adapter or module as claimed in claim 20 which has a an integrated infra-red transmitter and associated circuitry means which can emulate a local remote control unit, remote control messages being received by the wireless communication adapter or module over the local wireless protocol, these message being decoded and then reformatted by circuitry means in the wireless adapter unit for transmission to the local source media unit, this arrangement allowing a remote user to control the legacy equipment attached to the wireless communication adapter or module which have integrated infra-red remote control means, this allows users in another room or office to control the remote legacy equipment from a larger and non-line of sight distance.

21 A wireless communication adapter or module as claimed in claim 20 which can connect to several legacy equipment units and select, encode and transmit one or any combination of the output signal or information from the connected legacy equipment using a local wireless protocol to one or more remote wireless receiver units.

22. A wireless communication adapter or module as claimed in claim 21 which can be used and configured for connection to a games console so the games console's video, audio and data output can be input to the wireless adapter unit, encoded, formatted and re-transmitted to one or more remote wireless adapter receiver units.

23. A wireless communication adapter or module as claimed in claim 21 which can be used and configured for connection to a Digital Versatile Disc (DVD) player so Digital Versatile Disc player's video, audio and data output can be input to the wireless adapter unit, encoded, formatted and re-transmitted to one or more remote wireless adapter receiver units.

24. A wireless communication adapter or module as claimed in claim 21 which can be used and configured for connection to a modem so video, audio

and data received from an Internet connection can be input to the wireless adapter unit, encoded, formatted and re-transmitted to one or more remote wireless adapter receiver units.

25. A wireless communication adapter or module as claimed in claim 21 which employs MPEG2 and or MPEG4 encoding to encode and format the input video, audio and data information or signals.

26. A wireless communication adapter or module transmitter unit as claimed in claim 21 which has the means to allow the connection of one or more video or graphic sources, these sources including a video recorder, a Set Top Box (STB), a Digital Versatile Disc (DVD)Player , a computer games console, the wireless communication adapter or module transmitter having means to process, encode and transmit one or any combination of the input source signals to one or more wireless communication adapter or module receivers units to allow users at remote locations to watch the same or different programs from one or more of the selected sources, thus allowing legacy video and games equipment to be used by users in different locations and not be connected by cable means.

27. A wireless communication adapter or module capable of receiving and transmitting data and control messages, having interchangeable interface and connector means to allow the wireless adapter to be reconfigured and connected to various legacy equipment which have different connector and interface means, the wireless adapter or module being connected directly to the legacy equipment via the interface connector means, configured as a receiver unit to receiver signals and information transmitted from a wireless communication adapter or module as claimed in claim 21 which has circuitry means to demodulate the received signals, decode the baseband information, reformat and encode the baseband information to the appropriate format for output to a television unit, or a display unit which can also include audio means so the user can listen to any audio information, the unit also having processing, formatting , encoding and transmission means to allow duplex operation so remote user information can be sent back via the wireless link protocol return link to control the legacy equipment connected to the corresponding wireless communication adapter or module transmitter unit.

28. A wireless communication adapter or module as claimed in claim 27 which has connection means to also allow connection to an aerial for receiving terrestrial transmission, this input signal being buffered and or output directly via connector means, effectively by-passing the wireless unit circuitry, so the unit can be connected to a television unit or display unit allowing the user to watch terrestrial programs.

29. A wireless communication adapter or module as claimed in claim 28 which has a remote control and or handset unit connected to the wireless communication adapter or module via cable means, the remote control or

handset unit having circuitry to generate control messages to control the and interact with the source equipment means connected to the wireless communication adapter or module transmitter unit, these control signals first being processed and then transmitted to the wireless communication adapter or module transmitter unit via the return radio frequency link from the wireless communication adapter or module receiver unit to the wireless communication adapter or module transmitter unit.

30. A wireless communication adapter or module as claimed in claim 28 which has a remote control and or handset unit connected to the wireless communication adapter or module via an infra-red communication link means, the remote control or handset unit having circuitry to generate control messages to control the source equipment means, these control signals first being processed and then transmitted to the wireless communication adapter or module transmitter unit via the return radio link using the wireless link protocol.

31. A wireless communication adapter or module as claimed in claim 28 which has an associated remote control and or handset unit, the remote control or handset unit having circuitry to generate, encode and transmit the control messages to the wireless communication adapter or module transmitter unit via the return radio frequency link, which then decodes these messages for transfer to the selected signal source equipment.

32. A wireless communication adapter or module transmitter unit as claimed in claims 19 to claim 31 in which the wireless communication adapter or module transmitter unit has an integrated infra-red transmitter to allow the transmission of the received control messages from the remote control and or handset units to the signal source equipment, such as a video recorder, a set top box (STB), a Digital Versatile Disc (DVD) player, that have integrated infra-red remote control receivers to decode the transmitted control messages and then implement the requested function.

32. A wireless communication adapter or module receiver unit as claimed in claims 27 to claim 31 which can be connected directly or indirectly via cable means to a monitor unit, the wireless communication adapter or module receiver unit having integrated circuitry to perform the necessary line and field scan and deflection to display the decode video correctly.

33. A wireless communications adapter or module as claimed in claims 19 to claim 32 in which the wireless protocol employed to transfer control and data messages between the adapter and other remote equipment is based on the Bluetooth Communication standard, or the HomeRF standard or IEEE 802.11 wireless LAN Standard.

34. A wireless communications adapter or module as claimed claims 19 to claim 33 which the wireless adapter or module derives its power from either

an internal power source, such a batteries or re-chargeable batteries, or from the legacy equipment or from external power supply means.

35. A wireless communication adapter or module as claimed in any preceding claim in which Plug and Play means are implemented.

36. A wireless communication adapter or module as claimed in any preceding claim which can be connected to a docking unit which is used re-charge the internal batteries of the wireless communication adapter or module when it is not being used.

37. A wireless communication adapter or module as described herein with reference to Figures 1 - 11 of the accompanying drawings.

14/3,K/13 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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014140458 **Image available**
WPI Acc No: 2001-624669/200172
XRPX Acc No: N01-465440

**Short range wireless data communication link generation system in
wireless communication system, has transmitting and receiving units
adapted to operate at predetermined radio frequency carrier**

Patent Assignee: MOTOROLA INC (MOTI)
Inventor: EKLOF A A; MCDONALD J A; TSUTSUMI T; WILSON W J
Number of Countries: 023 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6301306	B1	20011009	US 2000579934	A	20000526	200172 B
WO 200193433	A2	20011206	WO 2001US10208	A	20010330	200203
EP 1297670	A2	20030402	EP 2001922881	A	20010330	200325
			WO 2001US10208	A	20010330	
KR 2003004437	A	20030114	KR 2002716034	A	20021126	200333

Priority Applications (No Type Date): US 2000579934 A 20000526

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6301306	B1		14	H04L-027/00	
WO 200193433	A2	E		H04B-000/00	
Designated States (National): JP KR					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU					
MC NL PT SE TR					
EP 1297670	A2	E		H04L-027/04	Based on patent WO 200193433
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI					
LU MC NL PT SE TR					
KR 2003004437	A			H04B-007/00	

Abstract (Basic):

... communication system such as TDMA system, CDMA system and FDMA
system between terminal devices like **video game controller** ,
computer mouse, keyboard, printer, electronic planner, **remote**
controller for television, stereo, **digital video disk player** ,
video cassette recorder, compact disk player, etc...